

Instructions for transitioning from SL7 to AL9

How to run g4numi on the NuMIX node

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Run in a AL9 container

- `/cvmfs/oasis.opensciencegrid.org/mis/apptainer/current/bin/apptainer shell --shell=/bin/bash -B /cvmfs,/nashome,/pnfs/numix,/opt,/run/user,/etc/hostname,/etc/hosts,/etc/krb5.conf --ipc --pid /cvmfs/singularity.opensciencegrid.org/fermilab/fnal-dev-sl7:latest export UPS_OVERRIDE="-H Linux64bit+3.10-2.17"`
- `cd g4numi`
- `source setup_beamsim.sh`

- You might see the following error:
- Setting up Fermi products; SAM, DCAP, jobsub_tools
- /cvmfs/fermilab.opensciencegrid.org/products/common/db
- Error encountered when setting up product: sam
- ERROR: Product 'sam' (with qualifiers 'prd'), has no current chain (or may not exist)
- If you don't need to use sam, ignore this and proceed to compile by doing:
- make clean
- make

Submitting jobs changed

- In your submission python script add this:

```
submit_command = ("jobsub_submit {GRID} {MEMORY} -N {NJOBS} -d G4NUMI {OUTDIR} "  
    "-G numix "  
    "-e BEAMCONFIG={BEAMCONFIG} "  
    "-e PLAYLIST={PLAYLIST} "  
    "-e RUN={RUN} "  
    "-f {TARFILE} "  
    "-L {LOGFILE} "  
    "--expected-lifetime=24h "  
    "file://{CACHE}/g4numi_job_muon.sh".format(  
    GRID          = ("--singularity-image  
/cvmfs/singularity.opensciencegrid.org/fermilab/fnal-wn-sl7:latest "  
        "--resource-provides=usage_model=DEDICATED,OPPORTUNISTIC "  
        "--role=Analysis " ),  
    MEMORY       = "--memory 1GB ",  
    NJOBS        = options.n_jobs,  
    OUTDIR       = options.outdir,  
    EXPERIMENT   = os.getenv("EXPERIMENT"),  
    BEAMCONFIG   = options.beamconfig,  
    PLAYLIST     = options.playlist,  
    RUN          = options.run_number,  
    TARFILE      = cache_folder + TARFILE_NAME,  
    LOGFILE      = logfile,  
    CACHE        = cache_folder)  
)  
  
print("Command to submit job:")  
print(submit_command)
```